

## SECTION 101400 - SIGNAGE

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Dimensional characters.
  - 2. Panel signs.
- B. Related Sections include the following:
  - 1. Division 01 Section "Temporary Facilities and Controls" for temporary Project identification signs and for temporary information and directional signs.
  - 2. Division 10 Section "Post and Panel/Pylon Signage" for freestanding signs.
  - 3. Division 22 Section "Identification for Plumbing Piping and Equipment" for labels, tags, and nameplates for plumbing systems and equipment.
  - 4. Division 23 Section "Identification for HVAC Piping and Equipment" for labels, tags, and nameplates for HVAC systems and equipment.
  - 5. Division 26 Sections for electrical service and connections for illuminated signs.
  - 6. Division 26 Section "Identification for Electrical Systems" for labels, tags, and nameplates for electrical equipment.
  - 7. Division 26 Section "Interior Lighting" for illuminated Exit signs.

## 1.3 DEFINITIONS

- A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."

## 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation details for signs.
  - 1. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 2. Provide message list, typestyles, graphic elements, including tactile characters and Braille, and layout for each sign.

- C. Samples for Verification: For each of the following products and for the full range of color, texture, and sign material indicated, of sizes indicated:
  - 1. Dimensional Characters: Full-size Samples of each type of dimensional character (letter, number, and graphic element).
  - 2. Aluminum: For each form, finish, and color, on 6-inch- long sections of extrusions and squares of sheet at least 4 by 4 inches.
  - 3. Melamine Plastic: 8 by 10 inches for each color required.
  - 4. Panel Signs: Not less than 12 inches square including border.
  - 5. Accessories: Manufacturer's full-size unit.
- D. Sign Schedule: See sign schedule 3.4
- E. Maintenance Data: For signs to include in maintenance manuals.
- F. Warranty: Special warranty specified in this Section.
- G. Qualification Data: For installer and fabricator.

#### 1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Source Limitations for Signs: Obtain each sign type indicated from one source from a single manufacturer.
- C. Regulatory Requirements: Comply with applicable provisions in ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

#### 1.6 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when weather conditions permit installation of signs in exterior locations to be performed according to manufacturers' written instructions and warranty requirements.
- B. Field Measurements: Verify recess openings by field measurements before fabrication and indicate measurements on Shop Drawings.

#### 1.7 COORDINATION

- A. Coordinate placement of anchorage devices with templates for installing signs.

#### 1.8 WARRANTY

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- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
    - a. Deterioration of metal and polymer finishes beyond normal weathering.
    - b. Deterioration of embedded graphic image colors and sign lamination .
  2. Warranty Period: 3 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Melamine Plastic: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).
1. Shear Strength: 16,800 PSI
  2. Tensile Strength: 22,000 PSI
  3. Flexural Modulus of Elasticity: 25,000 PSI
  4. Heat Deflection: 265 deg F (129 deg C) at 264 lbf/sq. in. (1.82 MPa) per ASTM D 648.
  5. Abrasion Resistance: 1.5 percent maximum haze increase for 100 revolutions of a taber abraser with a load of 500 g per ASTM D 1044.
  6. NEMA RATED "self extinguishing"
  7. Low chemical and particulate emissions meeting Greenguard Cert.

### 2.2 DIMENSIONAL CHARACTERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
1. A. R. K. Ramos.
  2. Gemini Incorporated.
  3. Metal Arts; Div. of L&H Mfg. Co.
- B. Cast Characters: Produce characters with smooth flat faces, sharp corners, and precisely formed lines and profiles, free of pits, scale, sand holes, and other defects. Cast lugs into back of characters and tap to receive threaded mounting studs. Alloy and temper recommended by sign manufacturer for casting process used and for use and finish indicated. Comply with the following requirements.
1. Character Material: Aluminum.
  2. Thickness: 1" D
  3. Height: See elevations
  4. Color(s): As selected by Architect from manufacturer's full range.
  5. Mounting: Concealed studs, noncorroding for substrates encountered.
  6. Letter Style: Optima Semi-Bold
- C. Dimensional Character Sign Schedule:

1. Character Text
  - a. Sign Spacing: As indicated on sheet A10.1
  - b. Character Size: 6"
  - c. Text/Message: WELCOME TO CIGNA UNIVERSITY
  - d. Location: interior wall
  - e. Room: Reception 105

2. Character Text
  - a. Sign Spacing: As indicated on sheet A10.1
  - b. Character Size: 6"
  - c. Text/Message: SERVERY
  - d. Location: interior wall
  - e. Room: Corridor 113

### 2.3 PANEL SIGNS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide or a comparable product by one of the following:
  1. Best Sign Systems Inc.
  2. Mohawk Sign Systems.
- B. Interior Panel Signs: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner, complying with the following requirements:
  1. Laminated, Sandblasted Polymer: Raised graphics with Braille 1/32 inch above surface with contrasting colors as selected by Architect from manufacturer's full range and laminated to acrylic back.
  2. Edge Condition: Square cut.
  3. Corner Condition: Rounded to radius indicated.
  4. Mounting: Unframed.
    - a. Wall mounted with concealed anchors and two-face tape on glass applications.
    - b. Manufacturer's standard anchors for substrates encountered.
  5. Custom Paint Colors: Match Pantone or paint color P-2 found on A12.2
  6. Color: 1 color to match P-2
- C. Tactile and Braille Sign: Manufacturer's standard process for producing text and symbols complying with ADA-ABA Accessibility Guidelines and with ICC/ANSI A117.1. Text shall be accompanied by Grade 2 Braille. Produce precisely formed characters with square-cut edges free from burrs and cut marks; Braille dots with domed or rounded shape.
  1. Panel Material: Melamine Plastic Sheet.
  2. Raised-Copy Thickness: Not less than 1/32 inch.
  3. Character Proportion: Letters and numbers on signs shall have a width – to – height ration between 3:5 and 1:1 and a stroke-width-to-height ration between 1:5 and 1:10.

- D. Engraved Copy: Machine engrave letters, numbers, symbols, and other graphic devices into panel sign on face indicated to produce precisely formed copy, incised to uniform depth.
  - 1. Engraved Melamine: Engrave through exposed face ply of plastic-laminate sheet to expose contrasting core ply.
- E. Subsurface Copy: Apply minimum 4-mil- thick vinyl copy to back face of clear acrylic sheet forming panel face to produce precisely formed opaque image. Image shall be free of rough edges.
- F. Panel Sign Schedule:
  - 1. Sign Type
    - a. Sign Size: See Sign Sketches on sheet A10.1
    - b. Message Panel Material: As indicated.
    - c. Message Panel Finish/Color:
    - d. Background Finish/Color: Match P-2
    - e. Character Size: 5/8"
    - f. Character Finish/Color: White
    - g. Text/Message: See schedule 3.4.
    - h. Location: See schedule 3.4.
    - i. Room: See Schedule 3.4
    - j. Quantity: See schedule 3.4

## 2.4 ACCESSORIES

- A. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

## 2.5 FABRICATION

- A. General: Provide manufacturer's standard signs of configurations indicated.
  - 1. Welded Connections: Comply with AWS standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
  - 2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
  - 3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
  - 4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

## 2.6 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.7 Melamine SHEET FINISHES

- A. Colored Coatings for Acrylic Sheet: For copy and background colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and that are UV and water resistant for three years for application intended.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that items, including anchor inserts, are sized and located to accommodate signs.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Locate signs and accessories where indicated, using mounting methods of types described and complying with manufacturer's written instructions.
  - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.
  - 3. Mounting height: Tactile characters on signs should be located 48" (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60" (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.
  - 4. Where existing toilet rooms or bathing rooms do not comply with Accessibility Codes, directional signs indicating the location of the nearest toilet room or bathing room complying with Accessibility Codes within the facility shall be provided. Signs shall comply with 703.5 and shall include the International Symbol of Accessibility complying with 703.7.2.1
- B. Wall-Mounted Signs: Comply with sign manufacturer's written instructions except where more stringent requirements apply.
  - 1. Two-Face Tape: Mount signs to smooth, nonporous surfaces. Do not use this method for vinyl-covered or rough surfaces.

2. Mechanical Fasteners: Use nonremovable mechanical fasteners placed through predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment to substrate as recommended in writing by sign manufacturer.
3. Signs Mounted on Glass: Provide matching opaque plate on opposite side of glass to conceal mounting materials.

C. Dimensional Characters: Mount characters using standard fastening methods to comply with manufacturer's written instructions for character form, type of mounting, wall construction, and condition of exposure indicated. Provide heavy paper template to establish character spacing and to locate holes for fasteners.

1. Flush Mounting: Mount characters with backs in contact with wall surface.

### 3.3 CLEANING AND PROTECTION

- A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

### 3.4 SIGN SCHEDULE

Room Number	Sign Text	Sign Type	Mounting	Quantity	Color
<u>AREA</u>					
A101	TOUCH DOWN	1	WALL	1	P-2
A102	LUGGAGE STORAGE	2	WALL	1	P-2
A103	ELECTRICAL	1	WALL	1	P-2
A104	COMPUTER CLOSET	2	WALL	2	P-2
A105	RECEPTION	1	WALL	1	P-2
A106	MECHANICAL	1	WALL	1	P-2
A107	WORKROOM	1	WALL	1	P-2
A109	VIDEO CONFERENCE	1	WALL	1	P-2
A110	TRAINING ROOM 3	2	WALL	2	P-2
A111	TRAINING ROOM 2	2	WALL	1	P-2
A112	TRAINING ROOM 1	2	WALL	1	P-2
A113	COAT CLOSET	2	WALL	1	P-2
A114	LUNCH ROOM	1	WALL	1	P-2
A115	KITCHEN	1	WALL	1	P-2
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A116	JANITOR	1	WALL	1	P-2
A117	WOMEN (W/ H.C. SYMBOL)	3	WALL	1	P-3
A118	CLOSET	1	WALL	1	P-3
A119	MEN (W/H.C. SYMBOL)	3	WALL	1	P-3

END OF SECTION 101400